

REMARKS

Claims 1 and 5 have been amended. Claims 6-11 and 41-53 have been cancelled.

The Examiner has objected to applicant's drawings because in FIGS. 21-28(c) only that which is old is illustrated and FIGS. 21-28(c) should be designated by a legend such as -- Prior Art --. Applicant has amended applicant's FIGS. 21-28(c) to add a legend "Prior Art" to each figure as suggested by the Examiner, thereby obviating the Examiner's objection.

The Examiner has rejected applicant's claims 67-81 under 35 U.S.C. 102(b) as being anticipated by the Takahashi, et al. (U.S. 5,483,280) patent. Applicant has previously cancelled applicant's claims 67-81 by a Preliminary Amendment dated October 19, 2000, thereby obviating the Examiner's rejection.

The Examiner has rejected applicant's claims 41-46 and 49-53 under 35 U.S.C. §102(b) as being anticipated by the Ernest, et al. (U.S. 4,827,348) patent. The Examiner has also rejected applicant's claims 1-11 and 41-53 under 35 U.S.C. §103(a) as being unpatentable over the Hisama (JP 09-098322) patent in view of the Yamaguchi (U.S. 5,638,123) patent. Applicant has cancelled applicant's claims 6-11 and 41-53, thereby obviating the Examiner's rejections with respect to these claims.

Applicant has amended applicant's independent claims 1 and 5, and with respect to such claims, and their respective dependent claims, the Examiner's rejection is respectfully traversed.

Applicant's independent claims 1 and 5 have been amended to better define applicant's invention. More particularly, applicant's amended independent claim 1 now recites an ND filter which is made to be capable of being inserted into or detached from an optical path and limits incident light in a case of existing on the optical path. Amended independent claim 1 further

recites a changing device which controls the iris at a first speed in a case that the ND filter is being inserted into the optical path or is being detached from the optical path, and controls the iris at a second speed slower than the first speed in a case that the ND filter is on the optical path or is out of the optical path. Applicant's method claim 5 has been similarly amended.

Such constructions are not taught or suggested by the cited art of record. More particularly, the Examiner has acknowledged that the Hisama patent does not disclose changing the state of limitation of the incident light at a second speed different from the first changing speed. However, the Examiner has argued that the Yamaguchi patent teaches that "the response speed of iris in camera can be faster than normal as change of luminance level thus making it possible to realize an iris response closer to that of the eye of human being (see col. 3, lines 15-21 & 41-43)" and that "it would have been obvious to one of ordinary skill in the art to realize that the changing state of limitation of the incident light by the iris in the Hisama patent would have been changed faster than normal as change of luminance level which is at least caused by insertion or removal of the ND filter with respect to the optical path so that the response of the iris increased to the level closer to that of the eye of human being to provide a better exposure control in camera."

Applicant has reviewed the cited passages in the Yamaguchi patent and respectfully disagrees with the Examiner's argument. The Yamaguchi patent is completely silent as to controlling the iris at a first speed where the ND filter is being inserted into or removed from the optical path and controlling the iris at a second speed slower than the first speed where the ND filter is on the optical path or out of the optical path. Nor would the operation of the Yamaguchi patent necessarily produce this result

More particularly, col. 3, lines 41-43 of the Yamaguchi patent cited by the Examiner discloses a response speed setting means for setting the degree of change of the response speed to a larger value, and col. 3, lines 15-21 of the Yamaguchi patent, also cited by the Examiner, teaches that the response of the iris is faster as the level of change in luminance which is not momentary becomes greater. However, the Yamaguchi patent further teaches in col. 3, lines 33-40 and in col. 12, line 21 to col. 13, line 2, that this change of the response speed is based on the luminance signal S_y and that the response speed is set to a larger value when the average luminance signal detected is very bright or very dark.

Accordingly, the Yamaguchi patent fails to teach or suggest controlling the speed of the iris in accordance with the state of an ND filter. Therefore, there is nothing taught or suggested in the Yamaguchi patent of controlling the iris at a first speed when inserting or removing the ND filter and controlling the iris at a second slower speed when the ND filter is on or out of the optical path. Moreover, the fact that the Yamaguchi patent teaches setting a response speed to be larger when the average luminance signal detected is very bright or very dark would not necessarily result in controlling the iris at a first speed when inserting or removing the ND filter and controlling the iris at a second slower speed when the ND filter is on or out of the optical path.

Applicant's amended independent claims 1 and 5, and their respective dependent claims, all of which recite such features, thus patentably distinguish over the Hisama patent in view of the Yamaguchi patent.

In view of the above, it is submitted that the claims, as amended, patentably distinguish over the cited art of record. Accordingly, reconsideration of the claims is respectfully requested.

Applicant notes also that applicant is submitting herewith an Information Disclosure Statement citing Japanese Patent Application Publication Nos.: JP 04-372935 (Kawahara), JP 05-219431 (Mori) which corresponds to U.S. Patent No. 4,555,685, JP 06-292069 (Yoshida) which corresponds to U.S. Patent No. 6,825,417, JP 09-331474 (Hisama), JP 10-276340 (Mori), JP 11-095136 (Ota) and JP 63-195315. Applicant submits that none of these references teaches or suggest a changing device for controlling an iris at a first speed in a case that an ND filter is being inserted into an optical path or is being detached from the optical path, and for controlling the iris at a second speed slower than the first speed in a case that the ND filter is on the optical path or is out of the optical path. A summary of the references follows:

Japanese Patent Application Publication No. 04-372935 (Kawahara)

The Kawahara patent application discloses changing the aperture opening driving speed to a higher speed so as to obtain a predetermined exposure condition when the exposure control state is not within a preset exposure range, i.e., the incident light intensity is different from an appropriate exposure intensity.

Japanese Patent Application Publication No. 05-219431 and U.S. Patent No. 5,455,685 (Mori)

The Mori patent application discloses increasing or decreasing the operation speeds of iris control means and AGC control means at the same time in accordance with the state of the image scene of the image to be taken.

Japanese Patent Application Publication No. 06-292069 and U.S. Patent No. 5,825,417 (Yoshida)

The Yoshida patent application discloses setting the driving speed of the aperture stop to high at the start of the image taking and recording operation so as to obtain an appropriate

exposure state immediately when the camera in the power saving mode is changed to image taking and recording operation.

Japanese Patent Application Publication No. 09-331,474 (Hisama)

The Hisama patent application discloses the information of the ND filter being transmitted to the camera side.

Japanese Patent Application Publication No. 10-276340 (Mori)

The Mori patent application discloses controlling the set parameters of a color correction means of an ND filter or the like in accordance with the setting of an optical means.

Japanese Patent Application Publication No. 11-095126 (Ota)

The Ota patent application discloses muting of an AGC when an ND filter is inserted into or detached from the optical path in order to provide a stable image.

Japanese Utility Model Application Laid-Open No. 63-195315

The '315 application discloses shifting of a prediction value of the exposure amount in accordance with the insertion and detachment of the filter.

If the Examiner believes that an interview would expedite consideration of this Amendment or of the application, a request is made that the Examiner telephone applicant's counsel at (212) 682-9640.

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Respectfully submitted,

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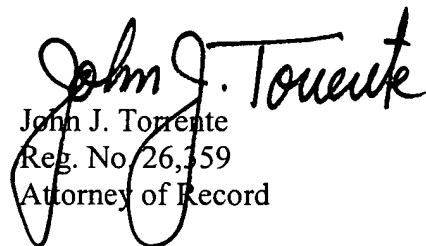

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FIG. 21 (PRIOR ART)

Legend Added

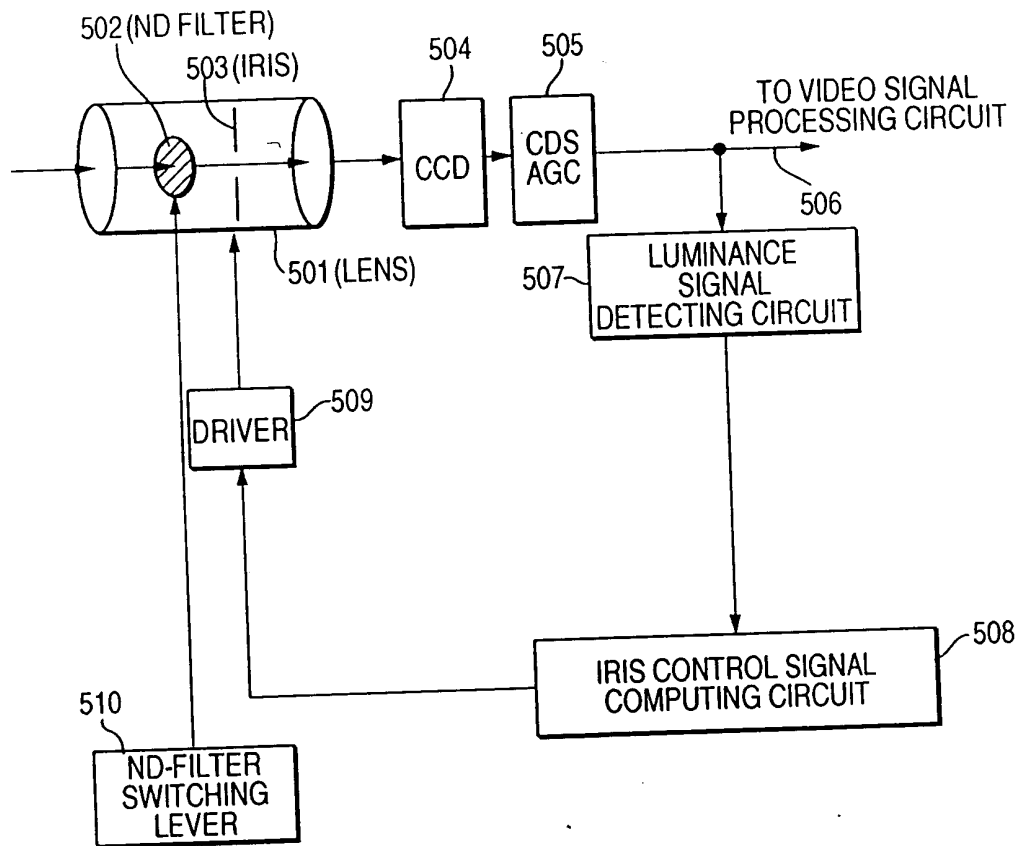
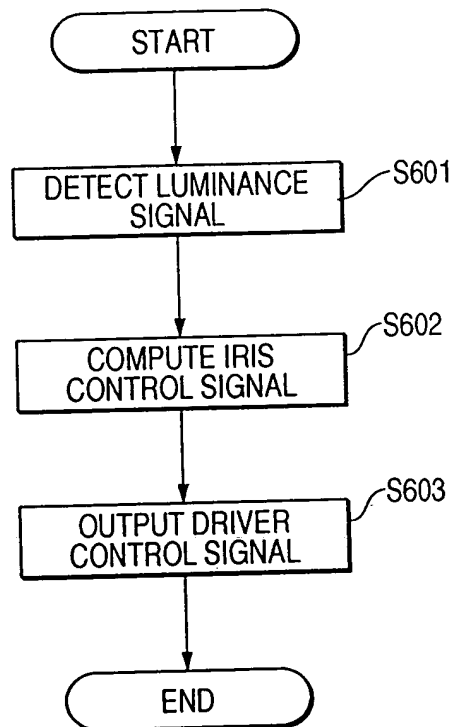




FIG. 22
(PRIOR ART) *Legend Added*





Legend Added

FIG. 23 (PRIOR ART)

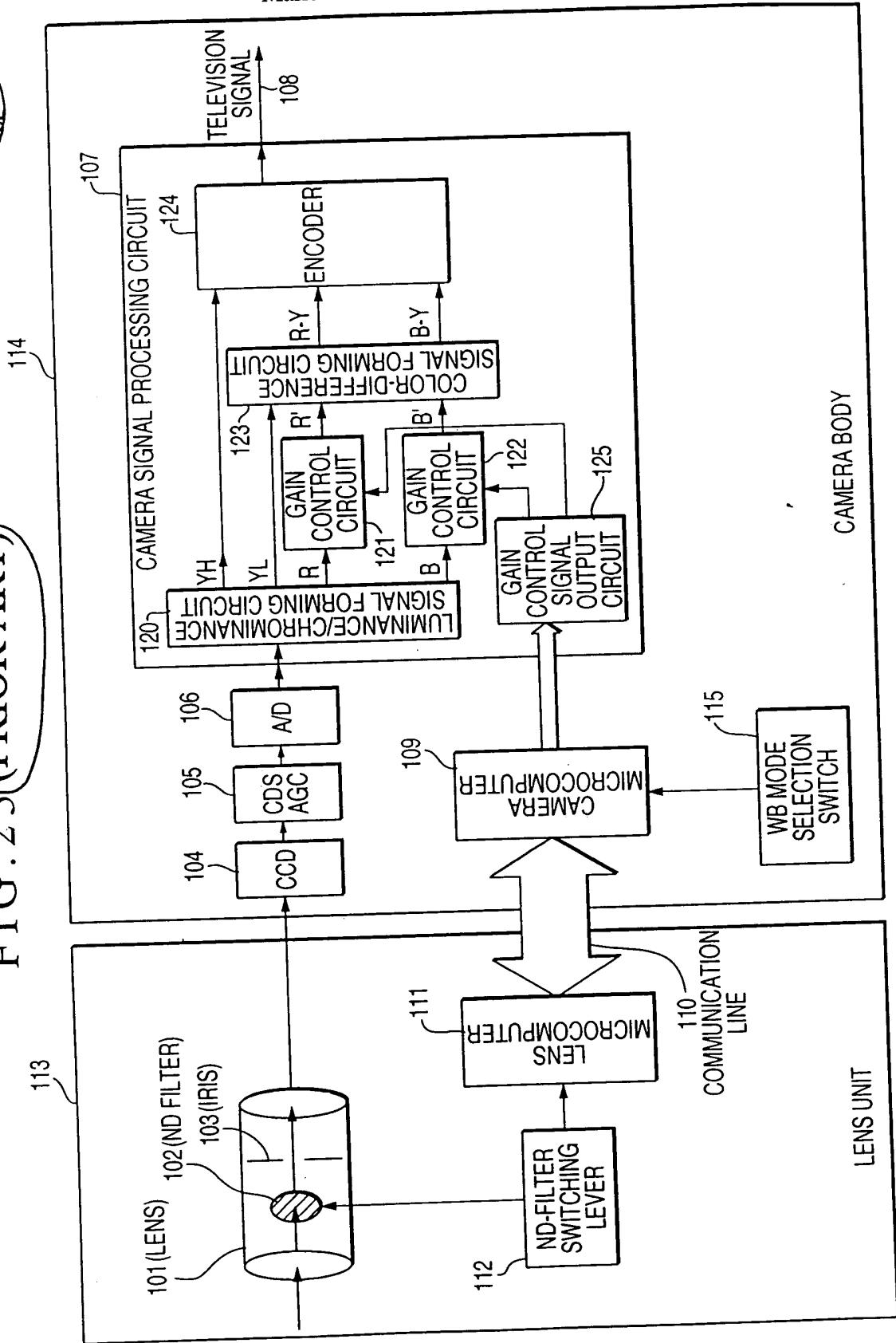
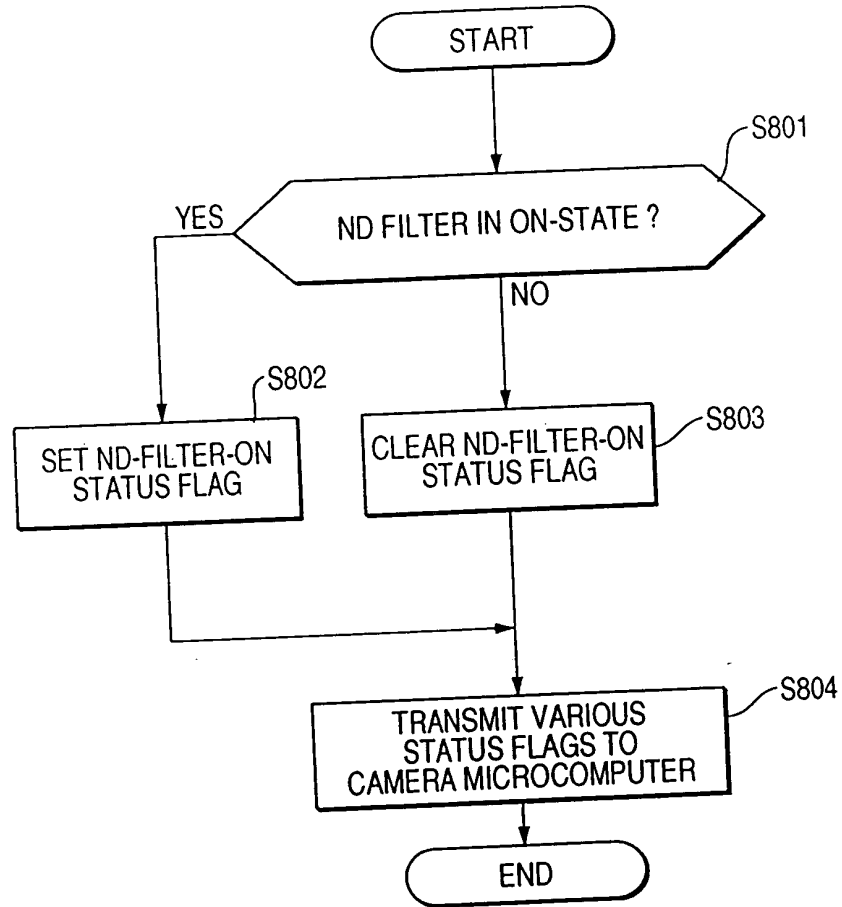
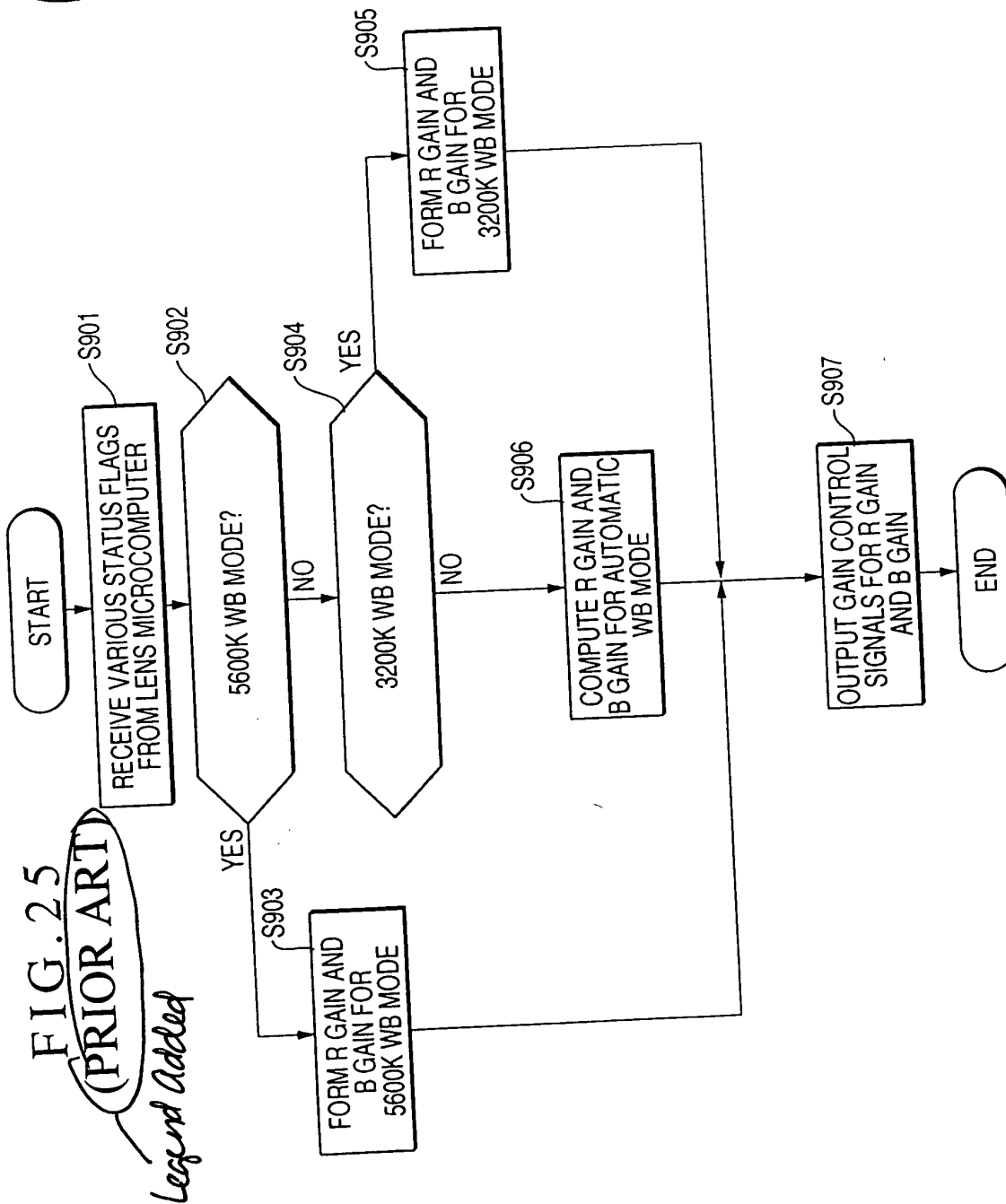




FIG. 24
(PRIOR ART) *Legend Added*





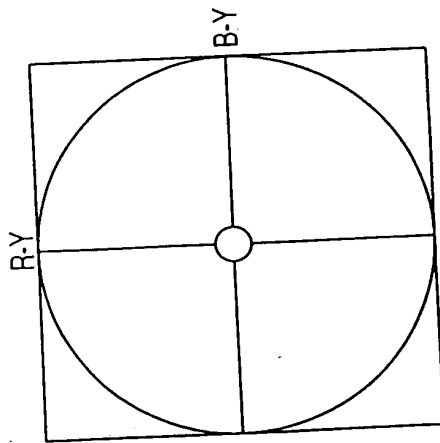


Legend Added

(PRIOR ART)

FIG. 26(a)

5600K WB MODE WHEN ND FILTER IS OFF



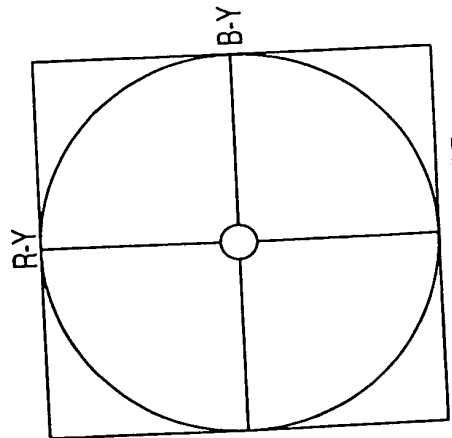
VECTOR SCOPE

Legend Added

(PRIOR ART)

FIG. 26(c)

3200K WB MODE WHEN ND FILTER IS OFF



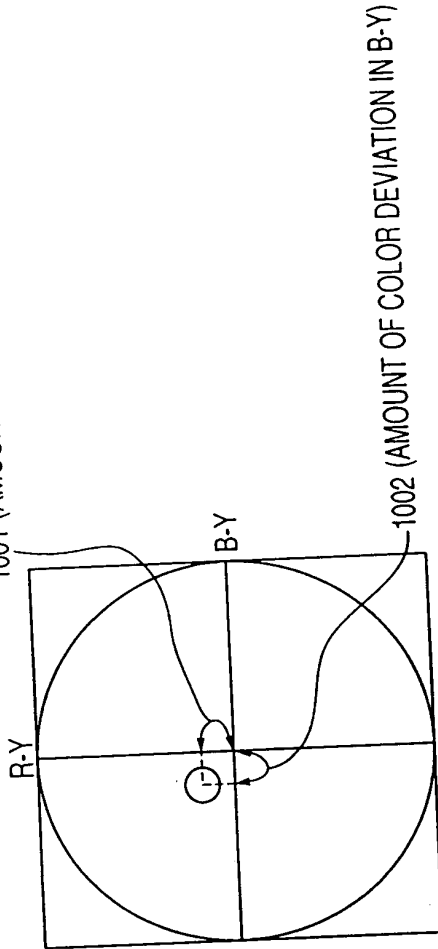
VECTOR SCOPE

Legend Added

(PRIOR ART)

FIG. 26(b)

5600K WB MODE WHEN ND FILTER IS ON
1001 (AMOUNT OF COLOR DEVIATION IN R-Y)



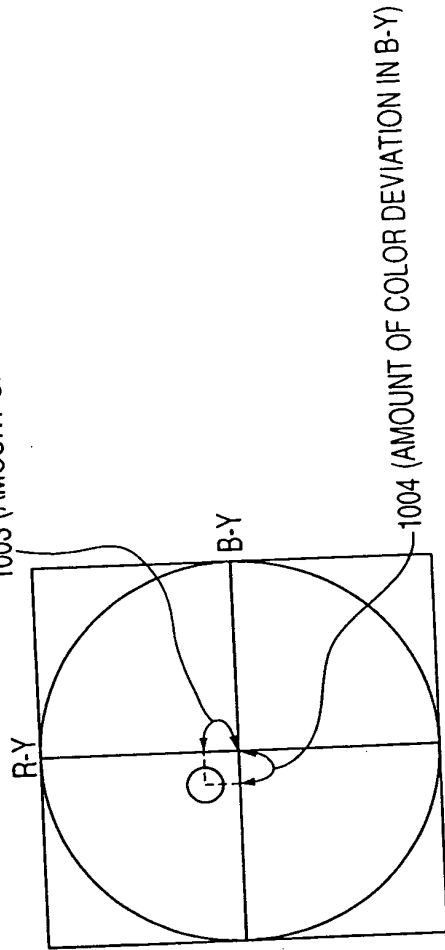
VECTOR SCOPE

Legend Added

(PRIOR ART)

FIG. 26(d)

3200K WB MODE WHEN ND FILTER IS ON
1003 (AMOUNT OF COLOR DEVIATION IN R-Y)

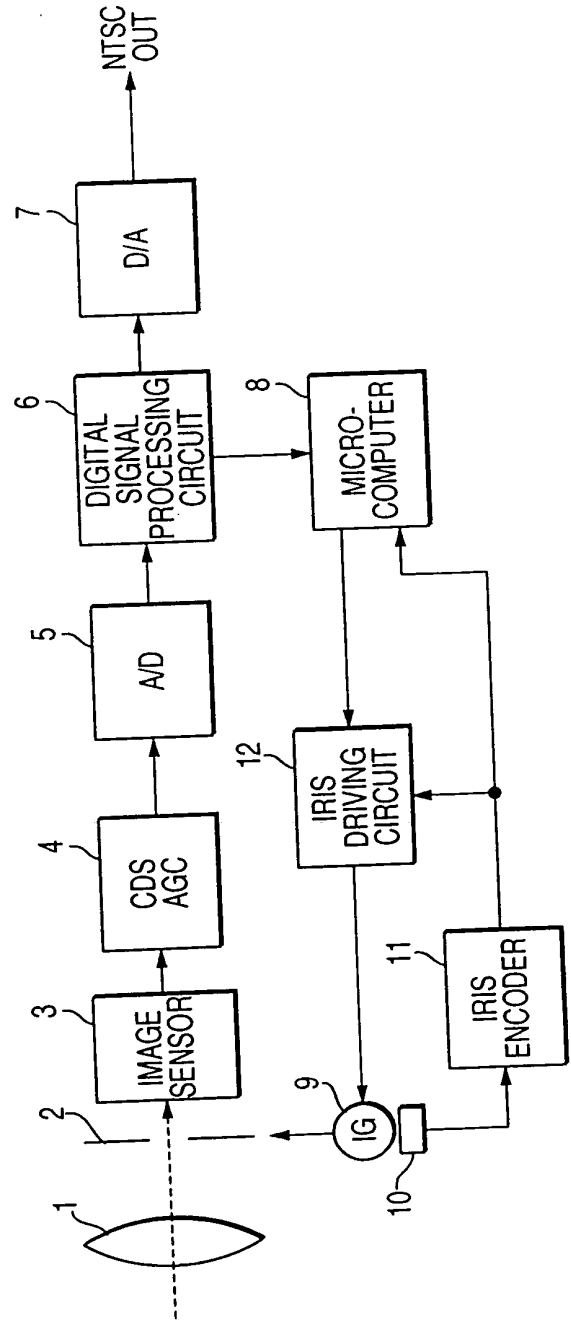


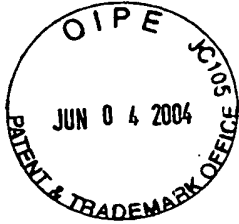
VECTOR SCOPE



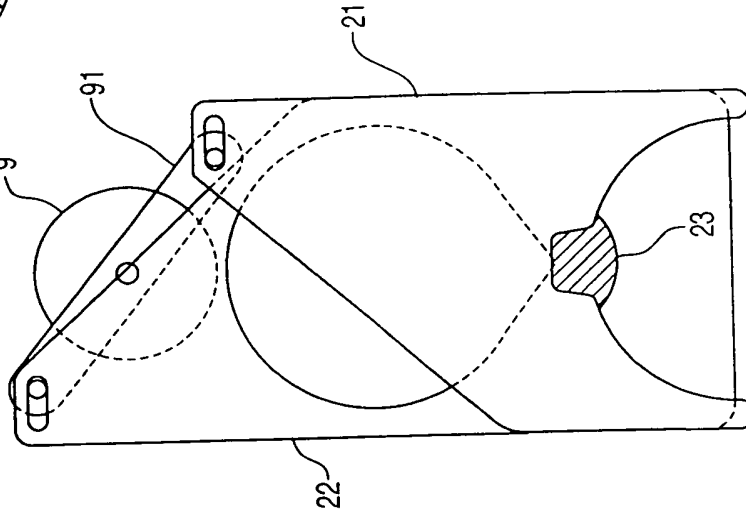
Legend Added

FIG. 27 (PRIOR ART)

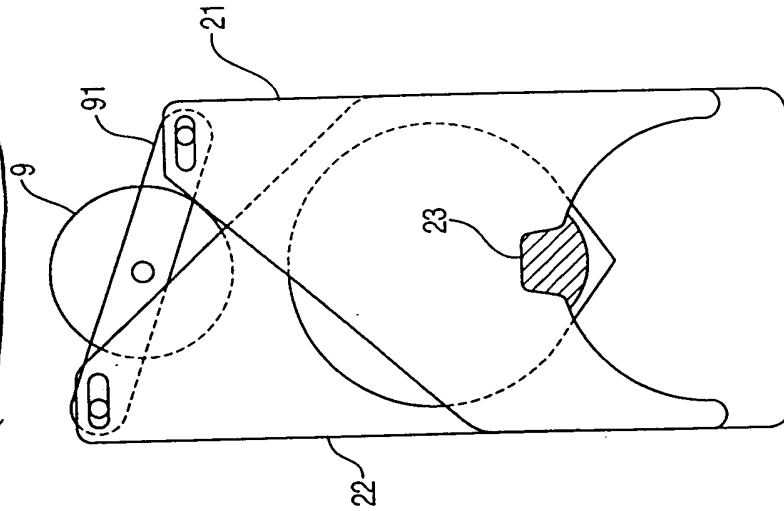




Legend
Added
FIG. 28(c)
(PRIOR ART)



Legend
Added
FIG. 28(b)
(PRIOR ART)



Legend
Added
FIG. 28(a)
(PRIOR ART)

